

In the Claims:

All claim amendments and cancellations are made without prejudice or disclaimer. This listing of claims will replace all prior versions, and listings, of the claims in the application:

Claims 1-26 (cancelled)

27. (new) An apparatus for separating mud from water of an air- mud-water mixture, comprising:  
a water tank defining a first reservoir and having a water tank inlet and a water tank outlet in an upper portion thereof; and  
a separation device defining a second reservoir, the second reservoir defining a mud reservoir at a bottom end thereof, coupled to and disposed at least partially within the water tank at a bottom of the water tank and extending into the water tank so that the water tank at least partially surrounds the separation device, the first and second reservoirs being separated by walls of the separation device to prevent direct fluid communication between the first and second reservoirs, and a separation device inlet having a first end configured to be in fluid communication with a mud tank and a second open end extending into the separation device with the second open end positioned above the mud reservoir such that an air-mud-water mixture being pumped through the separation device inlet sprays into the second reservoir causing mud in the air-mud-water mixture to settle into the

mud reservoir and water from the air-mud-water mixture to be pumped through an outlet in a top end of the separation device;

whereby the water from the separation device can be pumped into the water tank inlet and deposited in the first reservoir and air within the water tank can flow through the water tank outlet.

28. (new) The apparatus of claim 27, further comprising a baffle positioned within the second reservoir and spaced from the second open end of the separation device inlet so that the air-mud-water mixture being pumped through the separation device inlet sprays against the baffle.

29. (new) The apparatus of claim 27, wherein the separation device is substantially coaxially positioned within the water tank with the water tank and separation device being substantially vertically oriented.

30. (new) The apparatus of claim 27, further comprising a four-way valve having first and second valve inlets and first and second valve outlets, the first and second valve inlets being coupled to the water tank and separation device outlets, the first valve outlet being coupled to a pump that is coupled to the water tank inlet and the second valve outlet being in fluid communication with the vicinity.

31. (new) The apparatus of claim 30, wherein in a first state the four-way valve directs

a flow from the separation device outlet to the first valve outlet and from the water tank outlet to the second valve outlet and in a second state the four-way valve directs a flow from the second valve outlet to the first valve outlet and from the water tank outlet to the separation device outlet.

32. (new) The apparatus of claim 28, wherein the separation device inlet comprises a tube substantially vertically extending within the second reservoir from a bottom of the separation device defining the mud reservoir between the tube and the walls of the separation device and the baffle is positioned above the open end of the separation device inlet.

33. (new) The apparatus of claim 27, further comprising a mud tank separate from the water tank and separation device having a mud tank outlet in fluid communication with the separation device inlet.

34. (new) The apparatus of claim 33, wherein the mud tank is substantially horizontally oriented and comprises a cover on one end thereof configured to be swivelled upwardly to allow removal of solid materials contained therein.

35. (new) The apparatus of claim 27, wherein the separation device is contained within the water tank and wherein an outer wall of the separation device forms an inner wall of the water tank.

36. (new) The apparatus of claim 35, wherein the water tank and separation device are substantially cylindrically shaped and an air-water mixture flowing into the water tank inlet is directed somewhat tangentially into the first reservoir for forming a cyclone in the water tank.

37. (new) An apparatus for separating water from a mud-water mixture, comprising:  
a mud tank;  
a pump;  
a water tank defining a first reservoir and having a water tank inlet coupled to a pump outlet of the pump and a water tank outlet in an upper portion thereof; and  
a separation device defining a second reservoir, the second reservoir defining a mud reservoir at a bottom end thereof, coupled to and disposed at least partially within the water tank at a bottom of the water tank and extending into the water tank so that the water tank at least partially surrounds the separation device, the first and second reservoirs being separated by walls of the separation device to prevent direct fluid communication between the first and second reservoirs, and a separation device inlet having a first end in fluid communication with the mud tank and a second open end extending into the separation device with the second open end positioned above the mud reservoir;  
whereby an air-mud-water mixture being pumped by the pump through the separation device inlet sprays into the second reservoir causing the mud in the air-mud-

water mixture to settle into the mud reservoir and the water to be pumped through an outlet in an upper end of the separation device into the pump with the water pumped into the water tank inlet and deposited in the first reservoir and the air within the water tank flowing out of the water tank through the water tank outlet.

38. (new) The apparatus of claim 37, further comprising a baffle positioned within the second reservoir and spaced from the second open end of the separation device inlet so that the air-mud-water mixture being pumped through the separation device inlet sprays against the baffle.

39. (new) The apparatus of claim 37, wherein the separation device is positioned substantially within the water tank with the water tank and separation device being substantially vertically oriented.

40. (new) The apparatus of claim 37, further comprising a four-way valve having first and second valve inlets and first and second valve outlets, the first and second valve inlets being coupled to the water tank and separation device outlets, the first valve outlet being coupled to a pump that is coupled to the water tank inlet and the second valve outlet being in fluid communication with the vicinity.

41. (new) The apparatus of claim 40, wherein in a first state the four-way valve directs

a flow from the separation device outlet to the first valve outlet and from the water tank outlet to the second valve outlet and in a second state the four-way valve directs a flow from the second valve outlet to the first valve outlet and from the water tank outlet to the separation device outlet.

42. (new) The apparatus of claim 38, wherein the separation device inlet comprises a tube substantially vertically extending within the second reservoir from a bottom of the separation device defining the mud reservoir between the tube and the walls of the separation device and the baffle is positioned above the open end of the separation device inlet.

43. (new) The apparatus of claim 37, wherein the mud tank is separate from the water tank and separation device.

44. (new) The apparatus of claim 43, wherein the mud tank is substantially horizontally oriented and comprises a cover on one end thereof configured to be swivelled upwardly to allow removal of solid materials contained therein.

45. (new) The apparatus of claim 37, wherein the separation device is contained within the water tank and wherein an outer wall of the separation device forms an inner wall of the water tank.

46. (new) The apparatus of claim 45, wherein the water tank and separation device are substantially cylindrically shaped and an air-water mixture flowing into the water tank inlet is directed somewhat tangentially into the first reservoir for forming a cyclone in the water tank.